

Information regarding Experiment #2 data:

1) Wake profile data format are as follows:

Number of rows = number of y data points;

First data point of each row is free stream wind speed (manometer reading, m/s).

Second data point of each row is X location (in mm).

Third data point of each row is Y location (in mm).

Fourth and onward data points of each row are hot-wire time series data (in Volt).

2) Vortex shedding data format are as follows:

Only one row:

first data point is free stream wind speed (in m/s).

2nd and onward data points are hot-wire time series data (in Volt).

3) In order to get the wake profile, you have to convert the hot-wire raw data (in Volt) to velocity signal (in m/s) using the calibration coefficients.

4) Calibration coefficients can be obtained using hot-wire calibration data in King's law.

5) Diameter of the cylinder used for wake profile is 9.5 mm.

6) Diameter of the cylinder for the vortex shedding frequency measurement is 1.2 mm and the sampling rate is 10,000 samples per second.

Please don't copy from others' lab report and try your best.